

REMARKS

Claims 10-12 remain pending in an amended form. New claims 14 and 15 are being added. The non-elected claims 1-7 and 13 have been cancelled, as well as elected claims 8 and 9, all without prejudice.

Rejection of Claims 10-13 Under 35 U.S.C. §102

Claims 10-13 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0028704 to Mukaida et al. (hereinafter "Mukaida").

Claim 10 recites that individual metablocks are formed of a plurality of physical memory blocks. The Office Action holds that the "virtual block" of Mukaida is the equivalent of the claimed "metablock". Claim 10, as amended, recites that data are written either in sequence into only one of the blocks of a metablock in a single plane or in parallel to two or more blocks of a metablock in two or more planes, in response to varying characteristics of the host write commands. The Office Action references a description of Figure 12 of Mukaida as disclosing writing into individual blocks, and a description of Figure 22 as disclosing writing in parallel into multiple blocks of a virtual block. It is not believed that this description anticipates claim 10 as amended.

First of all, it should be noted that Mukaida's Figure 12 shows operation of the memory system of its Figure 1, while Figure 22 shows the operation of the different memory system shown of Figure 14. The paragraphs of Mukaida alleged in the Office Action to disclose writing either individual blocks of one memory chip or multiple blocks in multiple memory chips in parallel have been carefully reviewed but such a description has not been found. The two operations are described separately to be carried out in different memory systems. It is respectfully submitted that this cannot constitute an anticipation of claim 10.

Secondly, the description in Mukaida of its Figure 12 is not found to anticipate that blocks in "only one" of the planes are written in sequence, as claimed. It seems clear that the programming method illustrated in Figure 12 contemplates programming each physical block of an individual virtual block, one at a time. No suggestion of writing data to less than all the pages of a virtual block has been found in Mukaida, and certainly the sequential writing of data to individual blocks of only one of the planes is not disclosed.

For these reasons, claim 10 is submitted to be novel and patentable over Mikaida. Its dependent claim 11 is therefore submitted to be patentable for the same reasons. In addition, claim 11 adds the feature of writing an indication into the non-volatile memory of the blocks into which data are written in parallel. The Office Action alleges that a description of Figure 20 of Mukaida describes this added feature but this seems rather to describe translating logical addresses of the blocks into physical addresses. No description of keeping a record in the non-volatile memory of the blocks programmed in parallel is found in the cited passage of Mikaida.

Claim 12 is respectfully submitted to be novel and patentable over Mukaida, at least because of its recitation of “ . the number of units of data specified by individual ones of the received series of write commands varying, . ”. As discussed above, Mukaida discloses writing data into all of the blocks of a virtual block, either one block at a time (Figure 12) or in parallel (Figure 22). But nothing is found in Mukaida to suggest selectively writing data into less than all the blocks of a virtual block. Varying the number of units of data specified by the individual write commands, as claimed, is therefore novel over Mukaida.

New Claims

New independent claim 14 being added by this amendment is believed to be novel and patentable for the same reasons as expressed above for claim 10, and because of the additional detail included in this claim. In particular, the storage of an indication associated with individual sectors of data of whether the sector is being stored alone or with other sectors in a metablock is not suggested by the cited Mukaida reference. Use of the single page write for data of a FAT table, as specified by new independent claim 15, is also believed novel.

Application Papers - Drawings


On page 1 of the Office Action, it is indicated that the drawings filed December 30, 2003 have been accepted. It should be noted that formal drawings were filed on May 12, 2004 in response to the drawing requirement in the Notice to File Corrected Application Papers - Filing Date Granted, mailed by the USPTO on May 5, 2004. An indication of the status of the formal drawings is respectfully requested.

Conclusion

Accordingly, it is believed that this application is now in condition for allowance and an early indication of its allowance is solicited. However, if the Examiner has any further matters that need to be resolved, a telephone call to the undersigned at 415-318-1163 would be appreciated.

FILED VIA EFS

Respectfully submitted,


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3/22/07
 Date

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